CLAIMS

What is claimed is:

1   1.   A mobile communication device adapted for use with an automated monitoring

2   system for monitoring and controlling a plurality of remote devices, the automated

3   monitoring system comprising a site controller in communication with the plurality of

4   remote devices via a plurality of transceivers defining a wireless communication

5   network and in communication with a host computer via a wide area network, the

6   mobile communication device comprising:

7   memory comprising a unique identifier associated with the personal

8   communication device;

9   logic responsive to a transmit command and configured to retrieve the unique

10   identifier from memory and generate a transmit message using a predefined

11   communication protocol being implemented by the wireless communication network,

12   the transmit message comprising the unique identifier and configured such that the

13   transmit message may be received by the site controller via the wireless communication

14   network and such that the site controller may identify the mobile identification device

15   and notify the host computer of the transmit message; and

16   a wireless transmitter configured for communication over the wireless

17   communication network and configured to provide the transmit signal to the wireless

18   communication network.

1   2.   The device of claim 1, wherein the logic is stored in memory and the device

2   further comprises a microcontroller responsive to the transmit command and configured

3   to implement the logic.

1   3.   The device of claim 1, wherein the wireless transmitter is configured to provide

2   the transmit signal as a radio frequency signal.

1   4.   The device of claim 1, wherein the wireless transmitter is configured to provide

2   the transmit signal as a low power radio frequency signal.

1   5.   The device of claim 1, wherein the predefined communication protocol

2   comprises a data packet comprising:

3   a receiver address identifying the receiver of the data packet;

4   a sender address identifying the sender of the data packet; and

5   a command indicator specifying a predefined command code;

1   6.   The device of claim 1, wherein the logic is further configured to encrypt the

2   transmit signal.

1   7.   The device of claim 1, wherein the transmit signal comprises an emergency

2   command.

1   8.   The device of claim 1, further comprising a wireless receiver integrated with the

2   wireless transmitter and wherein the transmit signal is retransmitted until an

3   acknowledgement command is received from the site controller.

1   9.   The device of claim 1, wherein the mobile communication device is integrated

2   with a handheld computer.

1   10.   The device of claim 1, wherein the mobile communication device is integrated

2   with a wireless telephone.

1   11.   The device of claim 5, wherein the data packet further comprises a data payload

2   and a checksum field for performing a redundancy check.

1   12.   The device of claim 11, wherein the data packet further comprises:

2   a packet length indicator which indicates a total number of bytes in the

3   current packet;

4   a total packet indicator which indicates the total number of packets in the

5   current message; and

6   a current packet indicator which identifies the current packet; and

7   a message number identifying the current message.

1   13.   A mobile communication device adapted for use with an automated monitoring

2   system for monitoring and controlling a plurality of remote devices, the automated

3   monitoring system comprising a site controller in communication with the plurality of

4   remote devices via a plurality of transceivers defining a wireless communication

5   network and in communication with a host computer via a wide area network, the

6   mobile communication device comprising:

7   a means for storing a unique identifier associated with the mobile

8   communication device;

9   a means, responsive to a transmit command, for retrieving the unique identifier

10   from memory and for generating a transmit message using a predefined communication

11   protocol being implemented by the wireless communication network, the transmit

12   message comprising the unique identifier and configured such that the transmit

13   message may be received by the site controller via the wireless communication network

14   and such that the site controller may identify the mobile identification device and notify

15   the host computer of the transmit message; and

16   a means for providing the transmit signal over the wireless communication

17   network.

1   14.   The device of claim 13, wherein the means for providing the transmit signal

2   involves radio frequency communication.

1   15.   The device of claim 13, wherein the means for providing the transmit involves

2   low power radio frequency communication.

1   16.   The device of claim 13, wherein the predefined communication protocol

2   comprises a data packet comprising:

3   a receiver address identifying the receiver of the data packet;

4   a sender address identifying the sender of the data packet; and

5   a command indicator specifying a predefined command code;

1   17.   The device of claim 13, further comprising a means for encrypting the transmit

2   signal.

1 18.   The device of claim 13, wherein the transmit signal comprises a means for
2 identifying an emergency.

1 19.   The device of claim 13, further comprising a means for receiving an
2 acknowledgement command from the wireless communication network and wherein
3 the means for providing the transmit signal retransmits the transmit signal until an
4 acknowledgement command is received.

1 20.   The device of claim 13, wherein the mobile communication device is integrated
2 with a handheld computer.

1 21.   The device of claim 1, wherein the mobile communication device is integrated
2 with a wireless telephone.

1 22.   A method for enabling a mobile user to notify an automated monitoring system
2 of an emergency situation, the automated monitoring system configured for monitoring
3 and controlling a plurality of remote devices and comprising a site controller in
4 communication with the plurality of remote devices via a plurality of transceivers
5 defining a wireless communication network and in communication with a host
6 computer via a wide area network, the method comprising the steps of:
7   receiving notification that the mobile user desires to initiate transmission of an
8 emergency message to the site controller;
9   determining the identity of the mobile user; and
10   providing an emergency message over the wireless communication network for
11 delivery to the site controller, the emergency message indicating the identity of the
12 mobile user.

1 23.   The method of claim 22, further comprising the step of receiving
2 acknowledgement from the site controller over the wireless communication network
3 that the emergency message was received.

1 24.   The method of claim 23, wherein the step of providing the emergency message
2 is repeated periodically until acknowledgement is received.